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ABSTRACT

This study attempts to isolate variables which influence intelligence and achievement scores of disadvantaged black school children in the elementary school years. Based on a study of the mean changes in the IQ scores of third graders since they were in first grade, and of changes in the IQ and reading achievement scores of sixth graders since they were third graders, the report proposes that there are deleterious effects on the intellectual and academic achievement of black pupils. It is also proposed that these deleterious effects follow directly from their presence in a class where over a certain proportion of the student body is black. Social and psychological mechanisms contributory to the deleterious effects are explored. Socio-economic status along with inter-school mobility are also identified as two additional important variables. Tables giving test scores and results are included. (KG)

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STRUCTURAL EFFECTS OF RACIAL TRACKING IN TWO INNER CITY SCHOOLS

by

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The American liberal and the sociologist of education have joined hands in a common concern about the consequences of racial segregation in school systems. An increasing interest during the last decade or more in allegedly harmful affects for black children of de facto segregation has produced a body of literature which documents beyond reasonable doubt that segregated education retards the intellectual development of black pupils.[1] Nonetheless, almost all the research in this field has been bounded by certain simplifying assumptions about internal school organization. The level of analysis has usually been the individual school, and it seems to have been tacitly assumed that desegregation on this level of necessity meant racial mixing in the classroom. The possibility of homogenizing classes according to the pupils' race, a practice that is here called racial tracking, has been little considered as a phenomenon sui generis,[2] and the system of effects it generates is therefore largely unexplored. It is to this question that the following paper addresses itself. A distinction is made here between "desegregation" and "integration" of educational facilities. The implementation of the former does not necessarily produce the latter. A school may be considered desegregated if the racial composition of its pupil membership has come to reflect fairly accurately that of the pertinent age-groups in its catchment area, but it is integrated only if individual classrooms also contain similar proportions of the different ethnic groups and if seating inside the classroom is assigned either randomly or on a criterion other than race. The practice of racial tracking opposes the principle of school integration, whatever rationale is used to support it.

This paper departs from most previous related research in another

respect. Traditionally intelligence or achievement scores used as dependent variables have been treated synchronically, as measured at a particular point in time, although the variables with which they are related are better conceptualized as acting diachronically. The more elegant methodology employed here relates explanatory variables to <u>changes</u> in these scores between two points in time, a procedure that enables the influence of particular independent variables to be better isolated and assessed.[3] This permits us to draw conclusions about the stages of a pupil's career in which a variable has greatest impact on the process of intelligence change. It also controls for the fact that brighter black children are found disproportionately in integrated classes, making it necessary to isolate the effects of the experiences the child has undergone in his current class from the influence of his prior ability.

After this preamble we may state the primary purpose of this paper as an exploration of racial tracking as a dynamic of academic achievement in a sample of black schoolchildren. From an examination of the mean changes in the I.Q. scores of third graders since they were in first grade and of changes in the I.Q. and reading achievement scores of sixth graders since they were third graders, according to the racial composition of their current class, we propose that, even in a desegregated school, there are deleterious effects on the intellectual and academic development of black pupils, which follow directly from their presence in a class where over a certain proportion of the student body is black. After demonstrating that the role of class racial composition differs in the two effect periods, we present an exposition of the social and psychological mechanisms which have contributed to these findings.

In addition to class racial composition, which is the primary

explanatory variable, this study incorporates controls on two further factors that previous research has shown to be related to measured academic performance, namely socio-economic status (S.E.S.) and inter-school mobility.[4]

The conclusions are presented tentatively for two reasons. First, a limited number of cases is available, and the results may be affected somewhat by this limitation, though there is reason to believe that error from such a source is marginal at most. Second, and more important, is that we are in part using cross-sectional data to infer longitudinal effects, and it is necessary to assume that when the current sixth grade were in third grade they were similar to and, as a group, had been subject to the same influences as the current third grade.

Data and Hypothesis Formulation

The third and sixth grade black pupils in this study were in two Chicago public elementary schools in the spring of 1964.[5] The schools are both located in an inner city community, which is racially mixed and largely of middle-class composition, though certain blocks display a more lower-class appearance. In 1960 the community was 37.7 percent Negro and 13.5 percent of its families had incomes of less than $3,000 in 1959. The attendance areas of the two schools are adjacent and cover between them much of the community. By an aggregation of all or part of the relevant census tracts it was estimated that the attendance area of one school, hereafter referred to as Alpha, was about 29 percent Negro in 1960 with approximately 18 percent of families earning less than $3,000 in 1959; in the case of the other school, referred to henceforth as Beta, the figures were 26 percent and 11 percent respectively.

The racial composition of the attendance areas may be compared

with that of the third and sixth grades in each school, broken down by individual classes. This information is shown in Table 1. The proportion of black pupils in each school is almost identical at third grade, whereas at the sixth grade level Alpha has a somewhat higher proportion of black pupils than Beta, although the former still has a substantial numbers of whites. Table 1 shows that there are a large number of cases in the category of "other or unknown" race in Class E of Beta; however, many of those for whom we lacked data on race had names associated more frequently with blacks and so there is no reason to think that the percentage of black pupils given for this class greatly misrepresents its racial character, though it was considered unwise to include such cases in the analysis. Class I, also in Beta, has a large number of pupils in this category, but as the black students in this class were omitted from the body of the analysis for reasons subsequently set out, this is of no consequence. The grade totals of percentage black in the extreme right column are in excess of the racial composition of the schools' attendance areas, principally because these percentages are calculated on the basis of the total of only black and white pupils. Two other factors go towards explaining this difference. First, the racial composition of the neighborhood altered somewhat between 1960 and 1964 in the direction of a greater proportion of younger black inhabitants. Second, there is an expensive private school nearby to which are sent some, though not all, of the middle class children in the community; such children are disproportionately white. However, many of the local middle class do send their children to the public schools, and a consequence of this is that both schools, especially Beta, display extremely diverse socio-economic characteristics in their student bodies, ranging from children with mothers on welfare relief to others with parents of

TABLE 1

Racial Composition of Individual Classes

by School and Grade Level*

School Alpha	White	Black	Others, Unknown	Percentage Black of White and Black
Third Grade				
Class A	6	14	4	70%
Class B	13	5	2	28%
	19	19	6	50%
School Beta				
Class C	13	13	3	50%
Class D	27	3	2	10%
Class E	3	14	16	82%
Class F	0	8	1	100%
	43	38	22	47%
Grade Totals	62	57	28	48%
Sixth Grade				
School Alpha				
Class G	8	16	3	67%
Class H	10	16	2	62%
	18	32	5	64%
School Beta				
Class I	22	1	10	4%
Class J	18	5	5	22%
Class K	1	22	3	96%
	41	28	18	41%
Grade Totals	59	60	23	50%

*This table includes cases with incomplete data which were subsequently omitted.

considerable wealth.

Beta tracks its students into homogeneous ability groupings, a practice that is partial at third grade and complete at sixth grade. Because blacks perform poorly on I.Q. tests and are also disproportionately of lower socio-economic status, this policy isolates lower-class black pupils in classes separate from middle-class white pupils. Only one class in Beta, at third grade, contains a wide range of ability and this is the only integrated class. School Alpha, on the other hand, is more flexible in the distribution of its children among classes. In third grade there is some discrepancy in racial composition between classes A and B, but, as Table 2A will show, this is not enough to have harmful consequences in the more black class, and the racial composition of Alpha's sixth grade classes is almost identical.

Table 2A and 2B permit the formulation of hypotheses about the effects of racial tracking upon the intellectual development of the black child. Classes are classified as "Segregated, black" or "Integrated" according to whether their student body is greater or less than 75 percent black; at least at sixth grade, where the principal effects of class racial composition will be observed, this figure seems to be roughly the critical level differentiating classes where black pupils maintain initial progress from those where they fall behind. Classes less than 25 percent black are classified as "Segregated, white." Table 2A shows the mean I.Q. scores of the black and white pupils in each class separately.[6]

From Table 2A third grade I.Q. scores may be compared with the means of the first grade scores of the same pupils, and we may also see how current sixth graders have altered since they were in third grade. Table 2B permits a similar comparison to be made between the sixth grade reading

TABLE 2A

Mean I.Q. Scores for White and Black Pupils in Third and Sixth Grade Compared with their First and Third Grade Scores Respectively

Third Grade	Mean I.Q. Score in First Grade		Mean I.Q. Score in Third Grade		Mean Change since First Grade	
	Black	White	Black	White	Black	White
"Integrated" Classes						
Alpha A B=11, W=4*	103.7	106.3	103.7	113.5	0.000	7.250
Beta C B=12, W=11	111.4	117.9	109.2	115.5	-2.250	-2.455
Alpha B B=4, W=13	109.3	115.2	107.5	129.1	-1.750	13.846
	108.0	115.0	106.7	121.5	-1.259	6.500
"Segregated Black"Classes						
Beta E B=12, W=3	103.8	118.0	101.3	107.3	-2.500	-10.667
Beta F B=8, W=0	99.1	-----	98.8	-----	-0.375	-----
	101.9	118.0	100.3	107.3	-1.650	-10.667
Total Means, "Integrated" and "Segregated Black" Classes	105.4	115.3	104.0	120.2	-1.426	4.838
"Segregated White" Classes						
Beta D B=2, W=25	112.5	121.4	109.0	121.1	-3.500	-0.280
	112.5	121.4	109.0	121.1	-3.500	-0.280
Total Means, All Classes B=49, W=56	105.7	118.0	104.2	120.6	-1.510	2.553

TABLE 2A--Continued

Sixth Grade	Mean I.Q. Score in Third Grade		Mean I.Q. Score in Sixth Grade		Mean Change since Third Grade	
	Black	White	Black	White	Black	White
"Integrated" Classes						
Alpha G B=13, W=6	94.2	96.0	95.8	97.3	1.538	1.333
Alpha H B=14, W=10	110.6	112.8	110.4	126.9	-0.214	14.100
	102.7	106.5	103.4	115.8	0.630	9.312
"Segregated Black" Classes						
Beta K B=21, W=1	90.6	100.0	86.4	103.0	-4.190	3.000
Total Means, "Integrated" and "Segregated Black" Classes	97.4	106.1	95.9	115.0	-1.479	8.941
"Segregated White" Classes						
Beta I B=1, W=18	110.0	129.6	112.0	136.2	2.000	6.667
Beta J B=4, W=12	110.8	118.2	103.0	119.6	-7.750	1.417
	110.6	125.0	104.8	129.6	-5.800	4.567
Total Means, All Classes B=53, W=47	98.7	118.2	96.8	124.3	-1.887	6.149

*B are black pupils and W are white pupils for whom full data are available.

TABLE 2B

Mean Reading Scores for White and Black Pupils in Sixth Grade Compared with their Third Grade Scores

"Integrated" Classes	Mean Reading Score in Third Grade		Mean Reading Score in Sixth Grade		Mean Change Since Third Grade	
	Black	White	Black	White	Black	White
Alpha G B=15, W=6	2.720	3.017	4.633	5.050	1.913	2.033
Alpha H B=14, W=10	4.229	5.700	7.543	9.470	3.314	3.770
	3.448	4.694	6.038	7.813	2.589	3.119
"Segregated Black" Classes						
Beta K B=20, W=1	2.935	2.900	4.365	4.200	1.430	1.300
	2.935	2.900	4.365	4.200	1.430	1.300
Total Means, "Integrated" and "Segregated Black" Classes	3.239	4.588	5.355	7.600	2.116	3.012
"Segregated White" Classes						
Beta I B=1, W=19	4.800	6.774	7.700	10.974	2.900	4.200
Beta J B=4, W=12	3.825	5.558	6.850	8.666	3.025	3.108
	4.020	6.303	7.020	10.080	3.000	3.777
Total Means, All Classes						
B=54, W=48	3.311	5.696	5.509	9.202	2.198	3.506

achievement scores and those of the same pupils when they were in third grade.

The inferences to be drawn about the effects of current class racial composition upon the changes registered in black pupils' I.Q. scores between first and third grade are not conclusive. In no class in either school do blacks gain points; in one integrated class the average remains unchanged, while, of the two segregated classes, one has a heavy average loss and the other a small one. In addition the two black children in a nearly all-white class lose appreciably. We therefore expect the role of classroom segregation between first and third grades to be small, though this may be artificially reduced, because the small number of pupils in class F gives each one greater attention from the teacher and prevents large losses in I.Q. We have no indication of why there should be so few pupils in this class.

The effects of class racial composition provide a less ambivalent interpretation at the sixth grade level. Changes in I.Q. since third grade are on average positive or only slightly negative among black pupils in integrated classes, while substantial losses occur in the segregated black class. This loss takes on even greater meaning when one considers the initial level from which it is made. A property of I.Q. measurements that has received some attention from Bloom[7] is that changes of similar absolute numbers of points in one direction do not have the same significance on all parts of the scale, and it is easier to rise a certain number of points from an initial low score than from an initial high one. Conversely, loss of points is easier from a high score than a low one.[8] It is in this context that the average loss by black pupils in class K of 4.190 from the initially low position of 90.6 is to be interpreted.

Among black pupils in virtually all-white classes tangible

evidence of benefit from proximity to white pupils is lacking, in view of the large average loss by those in class J. In fact, black pupils in these classes have been omitted from subsequent analysis, because they are not in a truly integrated situation. The occasional black child in a mostly white class, especially if he knows that his presence there is only a minor concession to the principle of integration, is unlikely to benefit; in fact, the effects are more likely to be detrimental. This is even more true where, as here, the black pupil is less bright than the average white in his class.

Table 2B giving changes in reading achievement between third and sixth grades, shows that greater improvement is sustained by integrated black pupils, though in only one class is the improvement up to 3.0, the norm for the city as a whole. It is clear that reading achievement scores at this age behave in a different way from I.Q. scores. Absolute changes in I.Q. correlate negatively with initial scores, but , on the other hand, a high, rather than a low, initial reading score predisposes one to <u>greater</u> absolute gains, at least at this age.

<u>Methodology</u>

To isolate the orthogonal effect of racial tracking upon changes in ability measures, we employ the technique of "elaboration by partials." The rationale of this approach is explained in several standard works on empirical social research.[9] The stages of the analysis are as follows: first, we show that, as hypothesized, there is a relationship between change over time in the measured scores of black pupils and whether or not they are in integrated classes. Then we consider the control variables mentioned earlier of S.E.S. and inter-school mobility; the second step is therefore

to see whether S.E.S. and inter-school mobility are (a) related to the direction of change of ability and achievement scores, as anticipated on the basis of other research and (b) also related to class racial composition. Third, partialling is done to show that inter-classroom differences cannot be interpreted wholly in terms of the control variables, or "test factors."[10] All variables are treated dichotomously with division of the distribution usually at the median, though the meaning of the variable (e.g., white collar v. blue collar) is a higher-order criterion for a cutting point, if there is conflict. When cases with incomplete data are eliminated from consideration, there are 47 third graders and 48 sixth graders to be included in the study of I.Q. changes, and 49 sixth graders whose reading scores can be considered.

The dependent variables are defined as either "loss" or "no change or a gain." For I.Q. scores a significant loss is one of three or more points at each grade level, and for reading achievement it is a failure to maintain an improvement of at least 2.0 between third and sixth grades. A pertinent consideration governing the choice of these cutting points is the need to make allowances for random losses of a point or two due to errors in testing rather than to genuine loss of intellectual ability. There is also the troubling fact that the Chicago Public School system does not use the same type of intelligence and ability tests at all grade levels;[11] according to Dr. Curtis C. Melnick of the Chicago Public Schools, the different I.Q. tests are comparable in the range of 85 to 125, and vary somewhat in the tails of their distributions. Yet, even accepting this, it is necessary to allow some latitude in defining point losses in view of a certain element of non-comparability.

Unfortunately data on the test factor of individual S.E.S. is missing in many cases. The form used to collect this information merely

calls for "place of business," and it is filled in by the pupil's parent at first enrollment. In the face of this problem certain approximations are necessary. All children who are illegitimate or about the legitimacy of whose birth there is some doubt are included in the low S.E.S. category. The remaining cases of unknown S.E.S. have been classified as "high" or "low" according to whether the mean of the proportions of overcrowded residences in the blocks of their present and previous addresses is below or above an appropriate value,[12] as this variable is most related to individual S.E.S. Undoubtedly this practice alarms the purist, if only because it operationalizes the ecological fallacy, but there is no alternative.

The other test factor, inter-school mobility, is defined as follows. At both grade levels anyone who has moved into the school in the effect period is considered to have been mobile, irrespective of the number of his previous moves. For third graders this defines as mobile any child who has not entered the school in kindergarten or first grade, and for sixth graders anyone who has not been in his present school since the end of third grade. This paper assumes that the child has been in a class of similar racial composition to his present one during all or most of the effect period, if he is to be subject to the full effects of racial tracking, and clearly those who have changed schools in this time may have been exposed to classes of differing racial composition. However, a closer examination of the mobile members of the sample shows that at both grade levels almost all pupils whose school moves may have entailed a change in class racial composition have been in their present class at least a year, in some cases over two years, and the same is true of many who have moved from all-black schools into segregated classes.

Having set the stage, let us now return to the plot.

Results

Class Racial Composition without Test Factors: Table 3A shows the association between racial composition and I.Q. change. As was anticipated from inspection of Table 2A earlier, the relationship is stronger in the later period.[13] Table 3B shows that the degree of improvement in reading achievement between third and sixth grade is apparently related to class racial composition to almost the same degree as change in I.Q. To what extent do these relationships, especially the I.Q. period differential, persist when we consider the two test factors?

Controls on Inter-School Mobility and S.E.S.: Tables 4A and 4B relate the dependent variables separately to each test factor, and show the necessity of controlling on each. The interpretation of Tables 4A and 4B must be done in conjunction with Table 5, which cross-tabulates the individual test factors with the primary independent variable. Inter-school mobility has negative consequences on I.Q. change between first and third grade, and yet is apparently beneficial between third and sixth grade. This latter finding assumes a greater significance when we examine Table 5 and see that in sixth grade as well as third grade mobile pupils are located disproportionately in segregated classes. There are, however, a number of reasons we may put forward to explain the sixth grade mobility finding. Smith, Husbands, and Street[14] have shown that, at least among pupils in slum schools, the negative effects of mobility occur earlier rather than later in the school career of the child, and they also suggest that earlier moves are in any case more damaging than later ones, except perhaps among those of initially high I.Q., who exhibit slight more resistance to the effects of earlier mobility. These facts assist in

TABLE 3A

Percentage Changes in I.Q. Scores by Class Racial Composition

for Third Grade and Sixth Grade Black Pupils

Class Racial Composition	Third Grade			Sixth Grade		
	Loss	No Change or a Gain	Total	Loss	No Change or a Gain	Total
Under 75% Black	44.4 (12)	55.6 (15)	57.4 (27)	29.6 (8)	70.4 (19)	56.2 (27)
Over 75% Black	50.0 (10)	50.0 (10)	42.6 (20)	57.1 (12)	42.9 (9)	43.7 (21)
Total	46.8 (22)	53.2 (25)	100.0 (47)	41.7 (20)	58.3 (28)	100.0 (48)

Relationship Measures (Yule's Q)

Third Grade	Sixth Grade
-0.111	-0.520

TABLE 3B

Percentage Changes in Reading Achievement by Class Racial Composition for Sixth Grade Black Pupils

Class Racial Composition	Loss	No Change or a Gain	Total
Under 75% Black	51.7 (15)	48.3 (14)	59.2 (29)
Over 75% Black	75.0 (15)	25.0 (5)	40.8 (20)
Total	61.2 (30)	38.8 (19)	100.0 (49)

Relationship Measure (Yule's Q)

-0.474

TABLE 4A

Percentages with Loss in I.Q. Scores by Inter-School Mobility and Socio-Economic Status for Third Grade and Sixth Grade Black Pupils

	Third Grade	Sixth Grade
Inter-School Mobility		
No	41.9 (31)	50.0 (26)
Yes	56.2 (16)	31.8 (22)
Total	46.8 (47)	41.7 (48)
Socio-Economic Status		
High	41.2 (17)	23.5 (17)
Low	50.0 (30)	51.6 (31)
Total	46.8 (47)	41.7 (48)
Relationship Measures (Yule's Q)	Third Grade	Sixth Grade
Inter-School Mobility:	-0.281	0.364
Socio-Economic Status:	-0.176	-0.552

TABLE 4B

Percentages with Loss in Reading Achievement by Inter-School Mobility and Socio-Economic Status for Sixth Grade Black Pupils

Inter-School Mobility	
No	67.9 (28)
Yes	52.4 (21)
Total	61.2 (49)
Socio-Economic Status	
High	37.5 (16)
Low	72.7 (33)
Total	61.2 (49)
Relationship Measures: (Yule's Q)	
Inter-School Mobility	0.315
Socio-Economic Status	-0.633

TABLE 5

Percentage Distribution of Inter-School Mobility and Socio-Economic Status by Class Racial Composition for Third Grade and Sixth Grade Black Pupils

Class Racial Composition	Third Grade			Sixth Grade		
	No	Yes	Total	No	Yes	Total
Inter-School Mobility						
Under 75% Black	74.1	25.9	100.0 (27)	63.0	37.0	100.0 (27)
Over 75% Black	55.0	45.0	100.0 (20)	42.9	57.1	100.0 (21)
Total	66.0	34.0	100.0 (47)	54.2	45.8	100.0 (48)
Socio-Economic Status						
	High	Low	Total	High	Low	Total
Under 75% Black	40.7	59.3	100.0 (27)	51.9	48.1	100.0 (27)
Over 75% Black	30.0	70.0	100.0 (20)	14.3	85.7	100.0 (21)
Total	36.2	63.8	100.0 (47)	35.4	64.6	100.0 (48)

Relationship Measures (Yule's Q)	Third Grade	Sixth Grade
Inter-School Mobility	0.401	0.388
Socio-Economic Status	0.232	0.732

explaining why there is a positive relationship among sixth graders. Fewer of the moves after third grade are first moves, and all moves, including first ones, are less damaging in the later part of the school career. Furthermore, detailed individual analysis of the twenty-one mobile sixth graders shows that among the fifteen who have not lost I.Q. points, eleven have moved in from all-black schools, most of which are located in the slum. Thus, among the mobile, segregated sixth graders two contrary processes are at work--a tendency to lose points due to racial tracking and a tendency to gain because, over and above this, their present school is of better quality than their previous one.

Tables 4A and 4B show that there is still a relationship between S.E.S. and changes in measured ability and achievement. In Table 4A the stronger relationship at the sixth grade level appears at first to be an anomaly in the light of much research showing how background variables have all but exhausted their impact on intellectual development by this later period of the school career and have been superceded by influences specific to the educational environment, especially among black children.[15] However, Table 5 shows that this difference is adequately accounted for by the much greater relationship between class racial composition and S.E.S. among sixth graders. At third grade too there are disproportionate numbers of integrated Negroes in the higher S.E.S. category.

Tables 6A and 6B show the results of controlling on inter-school mobility. The relationship between class racial composition and I.Q. change becomes increasingly tenuous at the third grade level, yet persists in sixth grade. Among non-mobile third graders the direction of the association is reversed, though it remains among those who have been mobile. However, considering both I.Q. change and improvement in reading scores among sixth graders, a control on inter-school mobility does not

throw into question the validity of the original relationship.

Tables 7A and 7B contain the S.E.S. control. Among third graders we again find that the consideration of this test factor casts doubt on the original relationship. In the higher S.E.S. class it is reversed, though it remains among those in the lower category. Among sixth graders the relationship involving I.Q. change survives the S.E.S. control, but Table 7B shows that the matter is less clear-cut with regard to reading improvement. The relationship is attenuated to nothing in the lower S.E.S. category, and its strength in the other case must be seen as due mostly to the negligible number of high S.E.S. pupils in segregated classes.

Tables 8A and 8B show the results of complete partialling on the test factors. Considering Table 8A we see that the original relationship retains its direction, if not its size, among three of the four third grade sub-groups. As would be expected from Tables 6A and 7A, the association is reversed among high S.E.S., non-mobile pupils. Nonetheless, the size of the initial relationship is reduced almost to nothing among the low S.E.S. non-mobile pupils. The general conclusion we may make about the third grade data is that the two test factors reduce almost to nothing a relationship that was far from strong in the first place.

The sixth grade data in Table 8A offer less cause for ambiguity. As with the third graders, data on high S.E.S. non-mobile students oppose the principle hypothesis of racial effect, but, with only a single case in the segregated category of this sub-group, little real meaning can be attached to such a result. In two of the other three sub-groups it should be noted that the relationships are stronger than in the third grade equivalents. An adequate interpretation of the improvement in reading achievement in Table 8B is vitiated somewhat by the limited numbers on which several cells are based. The two negative unitary Q relationships

TABLE 6A

Percentages with Loss in I.Q. Score by Class Racial Composition and Inter-School Mobility for Third Grade and Sixth Grade Black Pupils

Class Racial Composition	Inter-School Mobility		
	No	Yes	Total
Third Grade			
Under 75% Black	45.0 (20)	42.9 (7)	44.4 (27)
Over 75% Black	36.4 (11)	66.7 (9)	50.0 (20)
Total	41.9 (31)	56.2 (16)	46.8 (47)
Sixth Grade			
Under 75% Black	35.3 (17)	20.0 (10)	29.6 (27)
Over 75% Black	77.8 (9)	41.7 (12)	57.2 (21)
Total	50.0 (26)	31.8 (22)	41.7 (48)
Relationship Measures (Yule's Q)			
Third Grade	0.178	-0.455	
Sixth Grade	-0.730	-0.481	

TABLE 6B

Percentages with Loss in Reading Achievement by Class Racial Composition and Inter-School Mobility for Sixth Grade Black Pupils

Class Racial Composition	Inter-School Mobility		
	No	Yes	Total
Under 75% Black	57.9 (19)	40.0 (10)	51.7 (29)
Over 75% Black	88.9 (9)	63.6 (11)	75.0 (20)
Total	67.9 (28)	52.4 (21)	61.2 (49)
Relationship Measures (Yule's Q)			
	-0.707	-0.448	

TABLE 7A

Percentages with Loss in I.Q. Score by Class Racial Composition and Socio-Economic Status for Third Grade and Sixth Grade Black Pupils

Class Racial Composition	Socio-Economic Status		
	High	Low	Total
Third Grade			
Under 75% Black	45.5 (11)	43.7 (16)	44.4 (27)
Over 75% Black	33.3 (6)	57.1 (14)	50.0 (20)
Total	41.2 (17)	50.0 (30)	46.8 (47)
Sixth Grade			
Under 75% Black	21.4 (14)	38.5 (13)	29.6 (27)
Over 75% Black	33.3 (3)	61.1 (18)	57.1 (21)
Total	23.5 (17)	51.6 (31)	41.7 (48)
Relationship Measures (Yule's Q)			
Third Grade	0.250	-0.263	
Sixth Grade	-0.294	-0.431	

TABLE 7B

Percentages with Loss in Reading Achievement by Class Racial Composition and Socio-Economic Status for Sixth Grade Black Pupils

Class Racial Composition	Socio-Economic Status		
	High	Low	Total
Under 75% Black	28.6 (14)	73.3 (15)	51.7 (29)
Over 75% Black	100.0 (2)	72.2 (18)	75.0 (20)
Total	37.5 (16)	72.7 (33)	61.2 (49)
Relationship Measures (Yule's Q)			
	-1.00	0.028	

TABLE 8A

Percentages with Loss of I.Q. Score by Class Racial Composition, Inter-School Mobility and Socio-Economic Status for Third Grade and Sixth Grade Black Pupils

Class Racial Composition	No Mobility		Mobility		Total
	High S.E.S.	Low S.E.S.	High S.E.S.	Low S.E.S.	
Third Grade					
Under 75% Black	50.0 (8)	41.7 (12)	33.3 (3)	50.0 (4)	44.4 (27)
Over 75% Black	25.0 (4)	42.9 (7)	50.0 (2)	71.4 (7)	50.0 (20)
Total	41.7 (12)	42.1 (19)	40.0 (5)	63.6 (11)	46.8 (47)
Sixth Grade					
Under 75% Black	27.3 (11)	50.0 (6)	0.0 (3)	28.6 (7)	29.6 (27)
Over 75% Black	0.0 (1)	87.5 (8)	50.0 (2)	40.0 (10)	57.1 (21)
Total	25.0 (12)	71.4 (14)	20.0 (5)	35.3 (17)	41.7 (48)
Relationship Measures (Yule's Q)					
Third Grade	0.500	-0.024	-0.333	-0.429	
Sixth Grade	1.00	-0.750	-1.00	-0.250	

TABLE 8B

Percentages with Loss in Reading Achievement by Class Racial Composition Inter-School Mobility and Socio-Economic Status for Sixth Grade Black Pupils

Class Racial Composition	No Mobility		Mobility		Total
	High S.E.S.	Low S.E.S.	High S.E.S.	Low S.E.S.	
Under 75% Black	36.4 (11)	87.5 (8)	0.0 (3)	57.1 (7)	51.7 (29)
Over 75% Black	100.0 (1)	87.5 (8)	100.0 (1)	60.0 (10)	75.0 (20)
Total	41.7 (12)	87.5 (16)	25.0 (4)	58.8 (17)	61.2 (49)
Relationship Measures (Yule's Q)					
	-1.00	0.0	-1.00	-0.059	

are doubtless in the right direction, but a single case in the segregated class in each sub-group greatly exaggerates them.

We may tentatively conclude on the basis of the analysis so far that control on the test factors does reduce the original relationships to some degree, even at the sixth grade level, and that the greater strength of the original relationship in the second effect period survives the partialling operation. Morris Rosenberg has provided a method called test factor standardization, which permits calculation of the extent the original observed relationship has been affected by the test factors.[16] The technique is particularly useful in this study, because it gives greater weight to those cells based on larger numbers of cases and minimizes the effects of random fluctuations due to small numbers of cases. The results of this standardization are shown in Table 9; the values obtained show the correctness of the earlier tentative conclusions from the partialling procedure. For sixth grade reading achievement scores the standardized relationship is increased very slightly, though this is almost certainly due to the small N problem, which even this method cannot fully redeem.

The delayed effect of class racial composition until after third grade is regarded as the most pertinent finding of this study, and this is the principal concern of the ensuing discussion of the nature of the racial effect.

Discussion

Much of the literature on the performance of black children on ability tests explains their poorer average showing by factors that are more specific to their general low economic status in American society and their lower class culture than to experiences based directly on caste

TABLE 9

Original and Standardized Values Between I.Q. and Reading Achievement Losses and Class Racial Composition for Third Grade and Sixth Grade Black Pupils

	Original	Standardized by		
		S.E.S.	Inter-School Mobility	S.E.S. and Inter-School Mobility
Third Grade Losses in I.Q. Scores				
Under 75% Black	44.4	44.4	44.3	44.9
Over 75% Black	50.0	48.5	46.7	45.8
Sixth Grade Losses in I.Q. Scores				
Under 75% Black	29.6	32.5	28.3	31.6
Over 75% Black	57.1	51.3	61.3	44.9
Sixth Grade Losses In Reading Achievement				
Under 75% Black	51.7	58.7	50.2	57.3
Over 75% Black	75.0	81.3	78.1	82.0

membership.[17] The latter are more often seen as producing various neuroses and personality disorders only indirectly related to intelligence test performance, such negative self-evaluation, self-hatred and the like. The direct relevance of social class explanations of the findings of this study is limited, however. They are suited to accounting for the lower absolute score of the average black child when he enters the school system, but our principal task is to explain the direction of changes from this score once he is already there. As the initial observed differences largely survived the S.E.S. control at the sixth grade level, the clue to understanding these findings must be sought in the differential experience of black children in the two types of class after third grade.

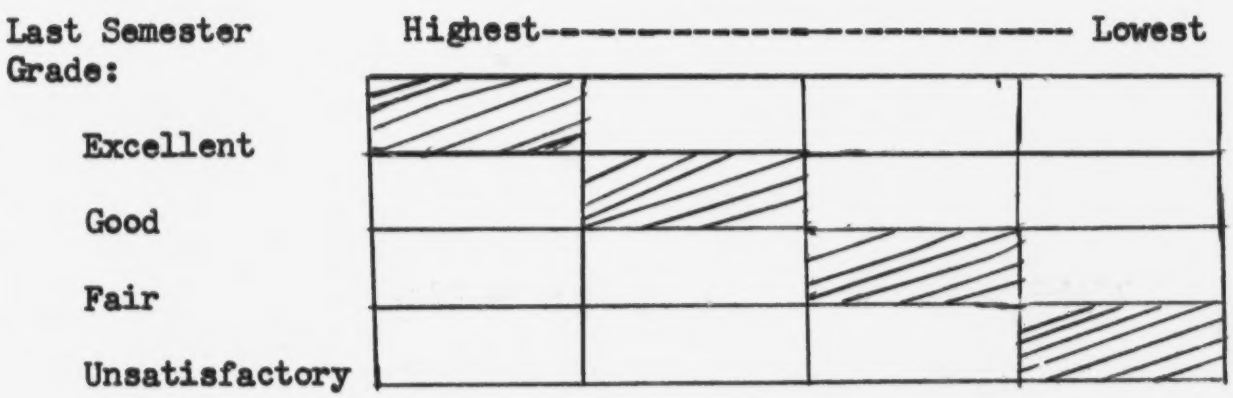
To explain the nature of the benefit received by children in integrated classrooms after third grade, two different hypotheses have immediate appeal, one which may be referred to as cultural and the other as social psychological. Numerous studies have shown that groups who are socially deprived in some way show an age decrement when their ability scores are compared with those of the general population; that is, the mean of scores for the younger children is closer to that of all children of the same age than is the case when comparisons are made at older age levels.[18] This may be because the intellectual needs of the younger child are satisfied in a restricted environment almost as well as they are in a rich one. Alternatively, or in addition, this may reflect that those intelligence tests designed to be applied to younger children are higher in psychomotor content than those used with older children, which increasingly call for verbal skills. If the latter is the reason for the differences observed in this study, the benefit that black children receive from their presence among whites is essentially cultural. White

students, in this case predominantly from the middle class, provide black students with verbal models more appropriate for the development of the linguistic facility which is required in the tests administered to higher grades. Black children in segregated classes between first and third grade are understood to be able to achieve sufficient verbal dexterity to handle the limited requirements of the third grade tests.

The plausibility of this hypothesis, at least as a partial explanation, is enhanced when we examine the nature of the particular tests used by the school system. The Kuhlmann-Anderson test used in almost all cases in first and third grade testing is claimed by its designers to measure "facility in dealing with concepts, symbols and relationships, rather than vocabulary knowledge, reading skills or school achievement."[19] There is even a variant of the third grade Kuhlmann-Anderson test which allegedly makes no demands on reading, though it is not known whether the school system uses this or the standard test at third grade. On the other hand, the California Test of Mental Maturity, which measured most sixth grade I.Q. scores, contains five factors, two of which, verbal concepts and memory, are particularly sensitive to linguistic or similar ability.[20]

Though the available data do not enable us to isolate the strength of this variable, there is nonetheless evidence that it is not the only influence and that another factor, a social psychological one, is operating. This would be suspected, if only because Table 2A shows that benefits are not received by those who would be most expected to gain, if the cultural explanation were the whole truth--the occasional blacks in mostly white classrooms. The social psychological explanation posits a series of processes tending to reduce levels of aspiration and achievement motivation among pupils in segregated classes after third grade, all of them following

directly from the fact that these children are black. In presenting the evidence for this it is assumed that lowered achievement motivation manifests itself in a smaller commitment to the values of the school and that a measure of such commitment is the semester grade received, this latter being a compound index of innate intelligence and such factors as devotion to study, school behavior, and attitude towards authority figures. To assess the relative tendency to uphold these values in segregated and integrated classes at third and sixth grade levels, a variation of a method used by Strodtbeck to measure N achievement is employed.[21] In his study motivation was regarded as a stable characteristic in each individual and he assessed N achievement according to the predictive power of current ability and achievement measures over grades being received. Our purpose is to measure changes in achievement motivation and therefore we assess the predictive power of I.Q. scores at the beginning of each effect period over the grade received at the end of the effect period, arguing that the former would provide a fairly independent measure of ability and the latter would be impacted by initial ability and degree of commitment to school values.[22] A higher grade than would be predicted on the basis of initial I.Q. represents overachievement, or high motivation and commitment, and vice versa. Because the schools apparently had different grading practices, School Beta being more liberal with good grades among third graders despite the lesser average I.Q. of its third grade black pupils, some adjustment was necessary in the criteria by which a child was classified as an "overachiever," a "normative achiever," or an "underachiever." Controlling on S.E.S. and class racial composition at each grade level, produced eight tables of the following sort:



In each sub-group cases falling above the cells on the diagonal are overachievers, those in the diagonal cells are normative achievers, and those below the diagonal are underachievers. The distributions are shown in Table 10. Also shown are the differences between the proportion of over-achievers and that of underachievers in each sub-group, providing an estimate of that sub-group's propensity in one or the other direction. Table 10 shows that, controlling on S.E.S., decline in aspiration between first and third grade does not come from presence in a segregated class. Among those of high S.E.S. there is little difference between segregated and integrated classes, while in the low S.E.S. group there may even be some underachievement in integrated classes, which provides some evidence for the contention subsequently to be discussed that children in this type of class early in their school career suffer greater trauma and have greater negative reactions. At sixth grade, however, a control on S.E.S. reveals a reduction of motivation among those segregated since third grade. Not only do pupils of similar S.E.S. in integrated classes at this age show a greater tendency to overachievement, but segregated classes underachieve more and integrated classes overachieve more than their counterparts at third grade. Thus a substantial degree of the difference between the rates of change in

TABLE 10

Changes in the Aspirations of Third Grade Black Pupils since First Grade and of Sixth Grade Black Pupils since Third Grade Measured by Predictive Power of Initial I.Q. Score over Final Semester Grade by Class Racial Composition and Socio-Economic Status (in Percentages)

Grade Level	Third Grade				Sixth Grade			
S.E.S.	High		Low		High		Low	
Class Racial Composition	Under 75% Black	Over 75% Black	Under 75% Black	Over 75% Black	Under 75% Black	Over 75% Black	Under 75% Black	Over 75% Black
Overachievers	36.4	33.3	18.8	50.0	42.9	0.0	15.4	5.6
Normative Achievers	45.4	50.0	37.5	7.1	57.1	66.7	53.8	55.6
Underachievers	18.2	16.7	43.8	42.9	0.0	33.3	30.8	28.9
Total	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.1
Cases	11	6	16	14	14	3	13	18
(Proportion of over-achievers)-(Proportion of underachievers)	0.18	0.17	-0.25	0.07	0.43	-0.33	-0.15	-0.33

intelligence scores among older black pupils in classes of different racial composition has a psychological and motivational base, which we shall interpret as a direct consequence of the segregated pupils being black.

Having presented some indications that there is a delayed motivational decline due to classroom segregation, we are ready to present an inferential model of how the observed effects are produced. It is contended that lowered individual aspiration among segregated sixth graders is a consequence of (a) structural characteristics of racially homogeneous classrooms in desegregated schools, (b) changing awareness among segregated black students of the implied meaning of racial tracking, as their school careers progress, and (c) different components in and reactions to the inter-racial situation in the two effect periods.

A variant of Blau's conception of "structural effects" is particularly suited to describing at least part of this model.[23] However, his description of structural effects has a synchronic emphasis on observed behavior and is not extrapolated to a concern with attitudinal dynamics. He shows that a prevailing group value influences dissenting group members to behave in a way which is contrary to their opinions about that behavior and is conformity with those of the majority of the group; but research on attitude structures leads one on from this to predict a change over time in the attitude of all but the most isolated of the initially dissenting members to concur with that of the rest. Thus a later cross-sectional analysis of the same group would show little or no structural effect, though attitude change would have occurred in certain members. This is the result of what may be called a diachronic structural effect.

It is therefore suggested that class racial composition exerts a diachronic structural effect on the aspirations of segregated black pupils

between third and sixth grades. This effect is characterized by an explicit racial basis and by the fact that it occurs in the segregated, rather than the integrated, setting. Because of these features it is deemed more appropriate in explaining the consequences of racial tracking in desegregated schools, at least in schools containing pupils of diverse socio-economic status and differentiated levels of educational aspiration. A high proportion of black students in a class becomes an ontological reality with its own pattern of effects upon constituent individuals. The black students of this sample have varying levels of initial aspiration, as has been suggested by Table 10, probably higher on average and more heterogeneous than those of black ghetto children. In the segregated classroom racial tracking reduces the initially high aspirant in the class to an average lower level, and increased awareness of the connotations of racial tracking produces an undifferentiated culture opposed to the values of the school, even among those pupils of higher S.E.S. This decline in average achievement motivation is registered in the greater tendency of those in segregated classes to lose I.Q. points between third and sixth grade.

This differs from the conception of contextual effects used by Coleman and his associates in their interpretation of the Equality of Educational Opportunity data. Such effects as theirs occur primarily in the integrated situation, and arise because the average group of white students has a higher motivation to achieve than is found in general among black students. Association of blacks and whites raises the formers' aspirations and sense of efficacy from an initially lower level and, without such contact, black students' motivation to achieve remains lower than that of whites. This evokes the concept of race only indirectly and is undoubtedly more suitable for the explanation of the effects of school segregation due to encapsulated ghetto living. Coleman et al. say:

> The higher achievement of all racial and ethnic groups in schools with greater proportions of white students is largely, perhaps wholly, related to effects associated with the student body's background and aspirations. This means that the apparent beneficial effect of the student body comes not from racial composition per se, but from the better educational background and higher educational aspirations that are, on the average, found among white students.[24]

The model of racial effect we propose, suggesting that most of the original observed differences are due to contextual effects in segregated classes after third grade, begs the question why the influence of this variable is delayed till this late point in the school career. The following considerations, compiled from previous related research, assist in explaining this . It has been held that mere contact among people of different races leads to more understanding, friendly attitudes, the reduction of stereotypes, etc., but, as Gordon Allport has observed in an extensive review of the evidence,[25] the truth is not so simple, and the circumstances under which contact is made differentiate between outcomes. Sudden integration from previous segregation often contains what Katz calls a "social threat component."[26] The negligible damage caused by racial tracking in the earlier effect period are due to the lesser ability, especially of younger children, to cope with inter-racial situations when first encountered, whereas the period between third and sixth grades is not likely to be the first experience of an integrated educational setting for those in racially mixed classes. Thus segregation early in the school career may protect the younger child from such consequences almost as much as it harms him. Entry into school is the first real experience of a bi-racial situation for most of the black children in this sample, and the discomforts of this are felt all the more if the classroom as well as the school is integrated. Though these schools are in a racially mixed community, residential segregation occurs internally, and most black children, including those of higher S.E.S., have little chance for

extensive contact with white children till they enter school. Thus in the first year or two the segregated black child may continue in a situation more analogous to that he is accustomed to in his neighborhood, while the child put into an integrated class is required to make a greater adaptation in his pupil role, and it would be surprising if the disturbances of entry in the first few years of school did not reduce somewhat the amount of benefit the latter would otherwise receive from intetration. On the basis of our findings it is therefore suggested that there is little change in the patterning of racial relationships between first and third grade, that decline in I.Q. scores is but little accounted for by class racial composition nor are the aspirations of the younger black child in a segregated class significantly reduced. However, by fourth grade processes of interracial accommodation are coming to prevail in integrated classes, and so black students in such classes are protected from a loss of aspiration.

Conclusions and Policy Implications

A recommendation that the Chicago Public School system should take steps to stop racial tracking in desegregated schools is an important, though obvious, conclusion to this research, but it attain special significance in the light of current efforts by the school system to bus black pupils out of ghetto schools into ones in mixed neighborhoods. Bettelheim and Janowitz have pointed out that busing black pupils in this way may increase self-hatred and reduce feelings of personal worth by creating the impression that they are a group unable to make any headway without the provision of special programs.[27] Though studies of busing projects in general report benefits received by blacks,[28] the lesson of their

observation should not be overlooked, namely that attempts should be made to lessen the salience of racial differences to those who are bused. The bused black child is probably goint into an intimate racially mixed situation for the first time and this in itself means that he is apprehensive about evaluation of his performance and his background by white students, but the practice of racial tracking in the long run defeats the object of a busing program by preventing the reduction of the salience of racial differences and permitting white students the luxury of invidious comparisons with black ones, whose supposed backwardness may be held as the reason why they are taught separately.[29] If bused black pupils are placed in formerly white classes in sufficient numbers to give them black peer support to overcome initial evaluation apprehension, then they should acquire full benefits in terms of motivation and conception of their ability that are provided by contact with whites (or, from the viewpoint this paper has argued, lack of contact with only blacks). If bused black pupils are separately taught, however, they may have a slightly less traumatic entry, but they are later likely to react negatively when they realize they are objects of discrimination.

FOOTNOTES

1. The most comprehensive and conclusive study to this effect is James S. Coleman et al., Equality of Educational Opportunity (Washington, D.C., U.S. Government Printing Office, 1966), which was ordered by Title IV of the 1964 Civil Rights Act.

2. The only satisfactory study found that analyzes the independent effect of class racial composition is "Further Analysis of Equality of Educational Opportunity Survey," Appendix C1 of U.S. Commission on Civil Rights, Racial Isolation in the Public Schools: A Report of the U.S. Commission on Civil Rights, Vol. 2, (Washington, D.C., U.S. Government Printing Office, 1967). The results of this study are similar to those obtained in this paper.

3. A fuller reasoning for this approach, pointing also to its greater appropriateness in the light of knowledge of the development of intelligence and to the greater control it provides upon contaminating background factors, is set out in Thomas S. Smith, C.T. Husbands, and David Street, "Pupil Mobility and I.Q. Scores in the Urban Slum: A Policy Perspective," in David Street (ed.), Innovation in Mass Education (New York: John Wiley and Sons, forthcoming, 1969).

4. There is a prodigious body of literature on social class differences in pupils' performance in ability and achievement tests. Some of it is summarized in Anne Anastasi, Differential Psychology, 3rd ed., (New York: Macmillan, 1958), pp. 515-522. One of the best and most sympathetic works discussing how social class affects test performance remains Allison Davis, Social-Class Influences Upon Learning (Cambridge, Massachusetts: Harvard University Press, 1965).

   The effect of inter-school mobility on I.Q. has been the subject of debate, but Smith, Husbands, and Street, op. cit., have shown its importance among lower socio-economic groups in the inner city. Also, Coleman et al. found that in the North mobility has detrimental effects upon Negro pupils; see Coleman et al. op. cit., p. 305.

5. The data are part of a larger study, sponsored by the Russell Sage Foundation and directed by David Street, that collected information from records maintained by school officials on all third, sixth, and eighth graders in nineteen public elementary schools on the South Side of Chicago. These grade levels are the ones at which the school system conducts standardized tests on a city-wide basis. The two schools in this study are the only ones for which individual data on race was available; this information was provided by several neighborhood women active in the P.T.A. who knew the families of the children in these schools.

6. The data for white pupils are included in Tables 2A and 2B, principally to show the intellectual level of each class as a whole and to provide a comparison of black vis-a-vis white pupils, where this is likely to be useful. However, as the concern of this paper is with black pupils, no conclusions are drawn about the performance of whites, and they are not considered in any of the subsequent analysis.

   Henceforth all tables designated with A contain I.Q. data for both third and sixth graders, and all those with B contain reading achievement data for sixth graders.

7. Benjamin S. Bloom, Stability and Change in Human Characteristics (New York: John Wiley and Sons, 1964), pp. 62-63.

8. A phenomenon the author has elsewhere called a "floor effect;" see Smith, Husbands, and Street, op. cit.

9. See, for example, Paul F. Lazarsfeld, "Interpretation of Statistical Relations as a Research Operation" in Paul F. Lazarsfeld and Morris Rosenberg (eds.), The Language of Social Research (Glencoe, Illinois: 1955), pp. 115-125. The most complete description is contained in Herbert H. Hyman, Survey Design and Analysis: Principles, Cases, and Procedures (Glencoe, Illinois: The Free Press, 1955), Chapter 7.

10. These data are unsuitable for the employment of linear regression techniques for two reasons: (a) S.E.S. and inter-school mobility were each available in such a form as to be better treated discretely, and (b) it was not anticipated that there would be a close pari passu relationship between I.Q. change and the proportion of black pupils in the class.

11. Forty-two out of forty-seven current third graders were measured in both first and third grades using the Kuhlmann-Anderson test; of the other five, one was given the California Test of Mental Maturity in first grade, three the Stanford-Binet, and in the last case the type of test used is unknown. The test used in the school system at sixth grade is the California Test of Mental Maturity, but only three children had received this in third grade, the remaining forty-five having had the Kuhlmann-Anderson. All but two of sixth graders' reading achievement scores in third grade were made with the Stanford Achievement test; the exceptions were administered the California Achievement test. In sixth grade the Metropolitan Achievement test was used throughout.

12. This value has been determined by an examination of the block characteristics of the residences of those few cases for which individual data on S.E.S. is available.

13. Interpretation of these relationships gives something of a problem, as statistical significance is a casualty of the small number of cases. Even in the sixth grade data Table 3A yields a chi-square value significant only at the 0.1 level, and when partialling in

the following tables further reduces the case base, none of the chi-square values is significant. Therefore, conclusions about the strength of all relationships are based on Yule's Q, though even this measure needs caution in interpretation; a small case base makes it more vulnerable to the effects of random error, as it is calculated from the proportions in each cell.

14. Op. cit.

15. See James S. Coleman, et al., op. cit., p. 301 and Racial Isolation in the Public Schools, Vol. 1, op. cit., p. 86.

16. Morris Rosenberg, "Test Factor Standardization as a Method of Interpretation," Social Forces, Vol. 41, No. 1 (October 1962), 53-61.

17. See, for example, several of the articles in A. Harry Passow, (ed.), Education in Depressed Areas (New York: Teachers College Press, Columbia University, 1963).

18. Several such studies, dealing with, among others, gypsy children, children of canal boat families and children in isolated mountain communities are reviewed in Anne Anastasi, Differential Psychology, op. cit., pp. 522-525.

19. F. Kuhlmann and Rose G. Anderson, Kuhlmann-Anderson Test: Technical Manual, 7th Ed. (Princeton, New Jersey: Personell Press, 1963), p. 14.

20. Elizabeth T. Sullivan, Willis W. Clark, and Ernest W. Tiegs, Examiner's Manual: California Test of Mental Maturity, (Monterey, California: California Test Bureau, 1963 Revision).

21. Fred L. Strodtbeck, "Family Integration, Values, and Achievement" in A.H. Halsey, Jean Floud, and C. Arnold Anderson (eds.), Education, Economy, and Society: A Reader in the Sociology of Education (New York, The Free Press, 1961), pp. 315-347.

22. Of course, initial I.Q. is only an independent measure of ability in the way we use it here to measure changes in aspiration between two points in time. It will be affected by social and other factors operative prior to the first point in time we consider.

23. Peter M. Blau, "Structural Effects," American Sociological Review, Vol. 25, No. 2 (April 1960), 178-193.

24. James S. Coleman et al., op. cit., p. 307.

25. Gordon W. Allport, The Nature of Prejudice, Abridg. (Garden City, New York: Doubleday Anchor Books, 1958), pp. 250-268.

26. Irwin Katz, "Review of the Evidence Relating to Effects of Desegregation On The Intellectual Achievement of Negroes." American Psychologist, Vol. 19, No. 6 (June 1964), 381-399.

27. Bruno Bettelheim and Morris Janowitz, Social Change and Prejudice (New York: The Free Press, 1964), p. 94.

28. For example, in a project in New York City that transported Puerto Rican and black children to a school in a white middle class neighborhood, the majority of children improved in their school work, their attendance, and their interest in school, though work habits and interest in school benefited more than did conduct and attendance; see Releasing Human Potential: A Study of East Harlem-Yorkville School Bus Transfer (New York: City Commission on Human Rights, 1962). In this program teachers in receiving schools were not told the absolute ability and achievement scores of each transferee, only whether he was in the top, middle or bottom third of the transferee group; see Martin Mayer, "The Local Board in New York City: A Personal Document" in David Street (ed.), Innovation in Mass Education, op. cit.

29. That bused black pupils often are taught separately is shown in Racial Isolation in the Public Schools, Vol. 1, op. cit., pp. 57-58. Until a local protest by civil rights agitators, this practice was followed in Cleveland, Ohio, and in Milwaukee, Wisconsin, a similar demand for complete integration of bused black students lead the Board of Education to discontinue busing on the grounds that it was educationally undesirable.